

Attorney's Docket No.: 06618/581001/CIT-3154

REMARKS

Reconsideration and allowance of the above referenced application are respectfully requested.

Claims 8-9 stand rejected under 35 USC 112, second paragraph, as allegedly being indefinite. In response, claim 8 has been amended herewith for definiteness. This should obviate the rejection.

The informality noted in claim 22 has been corrected.

Claims 1-23 stand rejected under 35 USC 103 as allegedly being unpatentable over U.S. patent No. 5,557,689, issued to Huttenlocher. This contention has been obviated by the amendment of the independent claims in order to include the limitations of some of the dependent claims.

Specifically, Huttenlocher admittedly has a similar idea to the present system-specifically the idea of categorizing each of a plurality of handwritten words, all at once. Huttenlocher teaches in column 10 comparing the word shape to a dictionary, and forming specified measurements to describe the word shape. The measurements are described at the bottom of column 10, which can include horizontal axis vs. length, contact with reference line, skew angles, and the like. This is done in order to form a dictionary which is used for comparison. Claim 1 has been

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amended to include the limitations of claim 4 therein, which specifies that the features are separated into higher profile features which have higher weighted parts during recognition, and lower profile features which have lower weighted parts during the recognition. This effectively separates the information into areas of higher entropy and lower entropy.

no support in spec.

In rejecting claim 4, the rejection stated that Huttenlocher teaches separating into higher and lower areas in figures 18A and 18B. Admittedly, these figures show a filtering operation which removes some of the handwritten information that does not convey any additional information to the recognition. However, this simply removes some of the information. Nothing in Huttenlocher in any way teaches or suggests the concept of having higher and lower priority information. As amended, claim 1 defines higher profile features which have higher weighting parts during recognition, and lower profile features which have lower weighted parts during recognition. For these reasons, it is respectfully suggested that claim 1 should be allowable along with the dependent claims which depend therefrom.

Claim 9 specifies another feature which is not in any way taught or suggested by Huttenlocher. Specifically, claim 9 specifies categorizing syllable blends. As explained in the specification, the present inventors found that certain

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 syllables are often found in combination with other syllables and may be written differently when found in that combination. For example, a letter may be written differently when followed with a vowel then it would be when followed with another consonant. A different technique is used to recognize syllable blends as compared to recognizing the presence of individual syllables. Therefore, claim 9 should be additionally allowable.

Claim 10 is respectfully suggested to represent specifically patentable subject matter, and it is respectfully suggested that the written rejection of claim 10 avoids the issue. The rejection simply states that Huttenlocher shows words, and therefore it would have been obvious to use Huttenlocher to recognize family names. However, most OCR software of this type teaches nothing about how to recognize family names.

recognition of family names is not claimed. Only that the sample includes family names. Claim is only a word to recognize a word had written word which may or may not include the family name.

Claim 11 specifies forming a list of family names, which is contrary to the way that systems of this type usually operate. In fact, systems of this type usually avoid recognizing family names, and rather simply try to recognize the words and ignore the names. The simple statement that words may include names is respectfully suggested to oversimplify the rejection. In fact, most software of this type avoids the recognition of names, and therefore it is respectfully suggested that claims 10-12 are

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further patentable over the cited prior art.

redundant Claim 15 has been amended to include the limitations of claim 21 therein. Specifically, this claim defines prime profiles indicative of features, and concatenated profiles indicative of combinations of specified features. As described above, with reference to claim 9, this is because different combinations of letters may be written differently by humans. The technique of using prime profiles and concatenated profiles that are indicative of letter combination, is not in any way taught or suggested by the cited prior art. Huttenlocher teaches nothing about recognizing single letters differently from multiple letters in this way. Therefore, it is respectfully suggested that amended claim 15 should be additionally allowable.

not claimed

Claim 17 has been amended into independent form, and should be allowable for reasons discussed above. Specifically, the prior art teaches using OCR to recognize words, and the general knowledge in the prior art is that handwriting OCR should be used to recognize words, not family names. Even if, however, OCR were used to recognize family names, there is still nothing teaching or suggesting using a list of possible words from a telephone book as the basis for the recognition. Therefore, amended claim 17 should be additionally allowable for these

The point is, someone would put down words in the dictionary. If he/she wanted names recognized, he would put names in dictionary. Family names are words (not all words are family names)

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reasons.

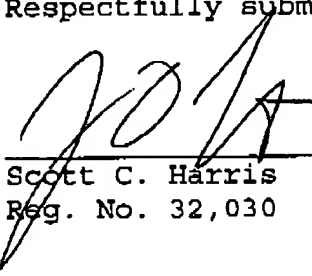
In view of the above amendments and remarks, therefore, all of the claims should be in condition for allowance. A formal notice to that effect is respectfully solicited.

Please apply the \$55.00 one month extension fee and any other charges or credits to Deposit Account No. 06-1050.


Respectfully submitted,

Date: 12/26/02

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Attached is a marked-up version of the changes being made by the current amendment.

Version with markings to show changes madeIn the claims:

Please cancel claims 2 and 4,

Please amend the remaining claims as follows:

1. (Amended) A method of recognizing handwriting, comprising:

obtaining a sample of handwriting;

segmenting said sample into separate handwritten words; and

attempting to recognize a whole handwritten word without attempting to recognize any individual letter of the whole handwritten word, by determining higher-profile features which have higher weighted parts during recognition, and low profile features which have lower weighted parts during recognition, and locations of said high-profile features and said low-profile features.

3. A method as in claim 2, ~~been said recognizing~~ comprises determining features of the silhouette.

5. (Amended) A method as in claim [3] 1, wherein said determining features comprises determining prime features.

6. (Amended) A method as in claim 5, further comprising [super] enclosing said prime features to form hybrid features.

7. A method as in claim 6, further comprising sorting said features by first syllable blends.

8. (Amended) A method as in claim 1, wherein said attempting comprises categorizing a whole of said [whole hidden] handwritten word according to its overall silhouette.

9. A method as in claim 8, wherein said categorizing comprises categorizing positions of features in said handwritten word, and categorizing first syllable blends of said handwritten word.

10. A method as in claim 1, wherein said sample of handwriting includes family names.

11. A method as in claim 10, further comprising forming a list of a plurality of family names, and forming silhouette information about said plurality of family names, and comparing said separate handwritten words to said plurality of family names.

12. A method as in claim 11, wherein said comparing comprises forming silhouette information, and comparing said silhouette information into said silhouette information about said plurality of family names.

13. A method as in claim 12, wherein said silhouette information includes information about the presence of high and low parts in the written word and the position of those high and low parts.

14. A method as in claim 12 wherein said silhouette information includes first syllable blends in the word.

15. (Amended) A method, comprising:

analyzing a sample of handwriting by analyzing a whole word of said sample at any one time, said analyzing comprising forming information indicative of a silhouette of said whole word, and comparing said information with a database of information about other silhouettes, wherein said silhouette information includes prime profiles indicative of specified features, and concatenated profiles indicative of combinations of specified features.

16. A method as in claim 15, wherein said database of information comprises a database of information obtained from a list of possible words.

17. (Amended) [A method as in claim 16] A method, comprising:

analyzing a sample of handwriting by analyzing a whole word of said sample at any one time, said analyzing comprising forming information indicative of a silhouette of said whole word, and comparing said information with a database of information about other silhouettes, wherein said silhouette information includes prime profiles indicative of specified features, and concatenated profiles indicative of combinations at specified features, wherein said database of information comprises a database of information obtained from a list of possible words, wherein said words are family names, and said list of possible words is a telephone book.

18. A method as in claim 15, wherein said silhouette information includes information indicative of high parts in the word and low parts in the word, and positions of said high parts and low parts in the word.

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19. A method as in claim 15, wherein said silhouette information includes information about first syllable blends in the word.

20. A method as in claim 18, wherein said silhouette information also includes information about first syllable blends in the word.

21. (Amended) A method as in claim 15, wherein said silhouette information includes prime profiles indicative of specified features, and concatenated profiles indicative of combinations [at] of specified features.

22. (Amended) A method as in claim 18, wherein each of a plurality of silhouette information['s] is provided with a number.

23. A method as in claim 18, wherein each feature is assigned a number.